



GRAND RAPIDS WATER SYSTEM: 2011 WATER QUALITY REPORT

Serving residential and commercial customers in the City of Grand Rapids as well as our partner communities of Ada Township, Cascade Township, City of East Grand Rapids, Grand Rapids Township, City of Kentwood, Tallmadge Township, City of Walker and portions of Ottawa County.

Why Do You Get This Report?

The Environmental Protection Agency (EPA) requires every community water supply throughout the United States to report specific details regarding water quality along with any contaminants which may be found in our tap water and source water. In order to ensure this information reaches all of our customers, the EPA requires this report be mailed to each household and business we supply.

Lead and Drinking Water:

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Grand Rapids Water System is responsible for providing high quality drinking water, but cannot control the varieties of materials used in plumbing components. Water that has been sitting for several hours has the potential to pick up these contaminants. In order to minimize the potential exposure you can flush the tap for 30 seconds to 2 minutes before using it for drinking or cooking. If you are concerned about lead in your water, you may wish to have it tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the safe drinking water hotline at 1(800)426-4791 or their website at <http://www.epa.gov/safewater/lead>.

The City of Grand Rapids implemented a corrosion control program in 1994 to reduce the amount of lead possibly leaching from household plumbing and is monitored following EPA guidelines. Prior to the corrosion program, 37% of the homes tested had lead levels above EPA's lead limit. Since the implementation of this program the lead levels have been significantly reduced, and in our most recent round of testing, none of the 50 homes tested had a lead level above the action limit.

Do I Need to Take Special Precautions?

The EPA sets legal limits and regulates the amount of contaminants allowed in drinking water provided by all public water systems. Sources of drinking water worldwide (both tap and bottled) may reasonably be expected to contain at least small amounts of some contaminants. Though contaminants are present, it does not necessarily indicate that the water poses any kind of health risk. We treat our water according to EPA regulations.

While EPA's health-based standards for drinking water are generally safe, some people may be more sensitive to contaminants in drinking water than the general population. Some infants, children or elderly, individuals who have undergone organ transplants, people with HIV/AIDS or persons receiving chemotherapy can be at risk for infections. These people should seek advice from their health care providers. More information on potential health effects of specific contaminants can be obtained by contacting the EPA's Safe Drinking Water hotline at 1(800)426-4791 or at their website at <http://www.epa.gov/safewater/dwhealth.html>.

About Contaminants:

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animal or human activity.

Contaminants that may be present in source water include: **Microbial contaminants** such as viruses and bacteria which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; **Inorganic contaminants** such as salts and metals which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming; **Pesticides and herbicides** which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses; **Organic chemical contaminants** including synthetic and volatile organic chemicals which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems; and **Radioactive contaminants** can be naturally-occurring or be the result of oil and gas production and mining activities.

More Information:

If you have questions regarding your bill, leaks or other water quality or service related issues, please call Water Customer Service at 456-3200, during normal business hours Monday through Friday. The Grand Rapids City Commission sets policies for the water system. For meeting dates and times call 456-3168. En Espanol: Este informe contiene información muy importante sobre el agua potable que le provee a Ud. La ciudad de Grand Rapids. Tradúzcalo o hable con alguien que lo entienda bien.

Source Water Assessment:

Lake Michigan is the sole source of water treated for the Grand Rapids Water System. This is considered a surface water source. The MDEQ completed a Source Water Assessment for the City of Grand Rapids water supply in 2003. This report found that our water supply has a moderately high susceptibility to contaminants. Environment contamination is not likely to occur when potential contaminants are used and managed properly. The Grand Rapids Water Treatment Plant routinely and continuously monitors the water for a variety of chemicals to assure safe drinking water. Industrial chemicals have not been detected in our source or treated water. The Grand Rapids Water System continues to be involved in and supports watershed protection efforts. If you wish information about the Source Water Assessment or have questions concerning the water quality testing results in this report contact:

John Allen, Filtration Plant Superintendent
Carl Palma, Chemist II

616-456-3927 or jallen@grcity.us
616-456-3700 or cpalma@grcity.us

Systems serving 10,000 or more are not eligible for a mailing waiver.

Please see reverse side for 2011 Water Quality Data

ALL USERS SHOULD RECEIVE A COPY OF THIS REPORT. PLEASE CALL 616-456-3200 FOR ADDITIONAL COPIES.

2011 Water Quality Data

Regulated at the Treatment Plant

Substance	Units	Range of Detections	Highest Level Detected	MCL	MCLG	Violations	Likely Sources
Barium	ppm	0.020 - 0.028	0.028	2	2	No	Erosion of natural deposits
Chromium	ppb	n.d.		100	100	No	Erosion of natural deposits
Fluoride	ppm	0.41 - 1.19	1.19	4	4	No	Water additive which promotes strong teeth
Nitrate	ppm	0.02 - 0.93	0.93	10	10	No	Erosion of natural deposits
Turbidity*	NTU	0.012 - 0.078	0.078	TT	n/a	No	Soil runoff

*Our treatment for turbidity was in 100% compliance of the regulatory limit. We are allowed a minimum of 95% compliance.

Regulated in the Distribution System

Substance	Units	Range of Detections	Maximum Running Annual Average	MCL or MRDL	MCLG or MRDLG	Violations	Likely Sources
Chlorine Residual	ppm	0.04 - 1.69	1.1	4	4	No	Water additive used to control microbes
Haloacetic Acids	ppb	5.9 - 37.0	26	60	n/a	No	By-product of drinking water chlorination
Total Trihalomethanes	ppb	17.9 - 56.3	37.6	80	n/a	No	By-product of drinking water chlorination

Regulated at the Customer's Tap

Substance	Units	Range of Detections	90th Percentile	AL	MCLG	# of Samples exceeding AL	Likely Sources
Copper (tested in 2010)	ppm	n.d. - 0.127	0.063	1.3	1.3	0	Corrosion of household plumbing system
Lead (tested in 2010)	ppb	n.d. - 5	4	15	0	0	Corrosion of household plumbing system

Unregulated Contaminants

Substance	Units	Range of Detections	Average	Likely Sources
Sodium	ppm	9	9	Mineral and nutrient

Cryptosporidium and Giardia

Cryptosporidium and Giardia are microscopic organisms that are commonly found in surface water throughout the U.S. Historical sampling of the Lake Michigan Filtration Plant source water indicates it is a low risk for contamination from these organisms. The current test methods are not capable of determining if detected organisms are alive and capable of causing illness or dead.

Source Water - There were no Cryptosporidium or Giardia detected in our source.

Treated Tap Water - There were no Cryptosporidium or Giardia detected in any treated tap water samples.

Note: The data table contains the highest annual test results for all required and voluntary monitoring of regulated substances. The Grand Rapids Water System monitors many regulated substances more frequently than required, and as a consequence, these results are included in the table above.

Key

MRDL = Maximum Residual Disinfection Level - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG = Maximum Residual Disinfection Level Goal - The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

MCLG = Maximum Contaminant Level Goal - The level of a substance below which there is no known or expected health n.d. = not detected n/a = not applicable

MCL = Maximum Contaminant Level - This is the highest level of a substance allowed in drinking water. NTU = Nephelometric Turbidity Units - Measurements of the minute suspended particles in the water. Used to judge water clarity.

ppm = parts per million - You win one million-dollars in the lottery. You give a friend one dollar. That's 1 ppm. TT = Treatment Technique - A required process intended to reduce the level of a substance in drinking water.

ppb = parts per billion - You inherit \$10 million dollars. When counting it you discover one cent is missing. That is 1 pf AL = Action Level - The amount of a substance when exceeded requires a treatment change or other response by a water system.